

B.Pharm Semester—V (C.B.S.) Examination
PHARMACOGNOSY AND PHYTOCHEMISTRY—III
(Chemistry of Natural Products)
Paper—4

Time : Three Hours]

[Maximum Marks : 80

N.B. :— (1) Q. No. 1 is compulsory.(2) **All** questions carry equal marks. Attempt any **FOUR** questions from remaining.

(3) Draw neat labelled diagram wherever necessary.

1. Solve any five questions of the following :
 - (a) Describe the various methods of extraction of Resins and Resins Combinations from plant material.
 - (b) Write pharmacognostic note on Coriander.
 - (c) Give the biological source, chemical constituents, chemical test and uses of Tolu balsam.
 - (d) Describe the principle and working of paper chromatography.
 - (e) Give a pharmacognostic account on Ginger.
 - (f) Give the biological source, chemical constituents, chemical test and uses of clove.
 - (g) Describe the construction and working of Soxhlets apparatus. 5×4=20
2. Define Volatile oil. Classify them with suitable examples of each class. Describe the various methods of extraction of volatile oil. Give a pharmacognostic note on Eucalyptus oil. 15
3. (a) What is Extraction and Extract ? Enlist the various methods for extraction of herbal drugs. Write an account on super critical fluid extraction. 8
 - (b) Write detail pharmacognostic account on Dill. 7
4. (a) Write structural elucidation of camphor. 8
 - (b) Write a short note on Benzoin. 7
5. (a) Write isolation, purification and chromatographic profile of Eugenol. 10
 - (b) Classify resins and resins combination with suitable examples of each class. 5
6. Write short notes (any **three**) :

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|-------------------------------------|-----------------|
| (i) Thin layer chromatography | (ii) Sandalwood |
| (iii) Asafoetida | (iv) Turmeric |
| (v) Structure elucidation of Taxol. | 5×3=15 |
7. Give the Biological source; chemical constituents, chemical test and uses of any **three** of the following :

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|---------------|-------------|
| (i) Colophony | (ii) Fennel |
| (iii) Tulsi | (iv) Guggul |
| (v) Caraway. | 5×3=15 |